

## **E.5 F.9**

### **Aquatic References Related to BMPs and Effectiveness**

Al-Chokhachy, R., Black, T., Thomas, C., Luce, C., Rieman, B., Cissel, R., Carlson, A., Hendrickson, S., Archer, E., and J. Kershner. 2016. Linkages between unpaved forest roads and stream sediment: why context matters in directing road restoration. *Restoration Ecology*. The Journal of the Society for Ecological Restoration.

Anderson, P.D. and N.J. Poage. 2014. The density management and riparian buffer study: A large-scale silviculture experiment informing riparian management in the Pacific Northwest, USA. *Forest Ecology and Management* 316: 90-99.

Belt, G.H., J. O’Laughlin and R. Merrill 1992. Design of forest buffers strips for the projection of water quality: analysis scientific literature. Idaho Forest, Wildlife, and Range Policy Analysis Group, Report No. 8.

Beshcta, R., C. Frissell, R. Gresswell, R. Hauer, J. Karr, W. Minshall, D. Perry, and J. Rhodes, 1995 Recommendations for Ecologically Sound Post-Fire Salvage Management and Other Post-Fire Treatments On Federal Lands in the West.

Black, T. and C. Luce, R. Cissell, N. Nelson, and J. Thornton. 2013. Inventory and Modeling the Hydro-geomorphic Impacts of Forest Roads on the Middle Fork of the Payette River, Idaho. In proceedings: Resource Roads in British Columbia: Environmental challenges at the site level, Columbia Mountains Institute of Applied Ecology, November 7-8, 2012 Cranbrook, British Columbia, Canada.

Brown, Kristopher R., W. Michael Aust, Kevin J. McGuire. 2013. Sediment delivery from bare and gravel forest road stream crossing approaches in the Virginia Piedmont. *Forest Ecology and Management*, 310 (2013) 836–846

Burroughs, E.R. and J.G. King. 1989. Reduction of soil erosion on forest roads. General Technical Report INT-264. USDA-Forest Service, Intermountain Research Station, Ogden, UT. July 1989. 21 p.

Christin, Richard, W. M. Aust, M.C. Bolding, S. M. Barrett, J.F. Munsel, and E. Schilling, 2015. Effectiveness of forestry best management practices in the United Staes: Literature Review. *Forest Ecology and Management* 360 (2016):133-151.

Croke, J., S. Mockler, P. Fogarty, and I. Takken. 2005. Sediment concentration changes in runoff pathways from a forest road network and the resultant spatial pattern of catchment connectivity. *Geomorphology*, 68, 257–268.

Damian, F. 2003. Cross-drain Placement to Reduce Sediment Delivery from Forest Roads to Streams. Master’s Thesis. Univ. of Washington.

FEMAT, 1993. Forest Ecosystem Management: An Ecological, Economic, and Social Assessment. Report of the Forest Ecosystem Management Assessment Team. Departments of Agriculture, Commerce, Interior, and EPA (pages V-26 thru V-28).

Flanagan, S., 2004. Woody debris transport though low-order stream channels of Northwest California-implications for road-stream crossing failures. Master’s Thesis. Humboldt State University, Arcata, CA.

Foltz, Randy B., Kristina A. Yanosek, and Timothy M. Brown. 2008. Sediment concentration and turbidity changes during culvert removals. *Journal of Environmental Management* 87 (2008) 329-240.

Foltz, Randy B., N.S. Copeland, and W.J. Elliot. 2009. Reopening abandoned forest roads in northern Idaho, USA: Quantification of runoff, sediment concentration, infiltration, and interrill erosion parameters. USDA Forest Service, Rocky Mountain Research Station, Moscow, ID. *Journal of Environmental Management* 90 (2009): 2542-2550.

Foltz, Randy B., B. Westfall, and B. Kopyscianski. 2013. Turbidity Changes During Culvert to Bridge Upgrades at Carmen Creek, Idaho. Res. Note RMRS-RN-54. Fort Collins, CO: U.S. Department of Agriculture, Forest Service, Rocky Mountain Research Station. 12 p.

Grace, J.M. III and B. D. Clinton. 2006. Forest Road Management to Protect Soil and Water. ASABE Paper No. 068010. Presented at ASABE Annual International Meeting, Portland, OR, July 9-12, 2006.

Idaho Dept. of Environmental Quality, 2013. Idaho 2012 Interagency Forest Practices Water Quality Audit. Compliance and Effective Shade-Tree Density Assessment. Boise, ID.

Jones, R.M., 2001. Timber Harvest and Road Construction on the Clearwater National Forest. The Last 20 years. Have our watersheds improved? Clearwater National Forest, Orofino, ID.

Lee, P., C. Smyth and S. Boutin. 2004. Quantitative review of riparian buffer width guidelines from Canada and the United States. *Journal of Environmental Management* 70 (2004) 165-180.

MacDonald, L. 2005. Sediment production and delivery from unpaved forest roads in the Sierra Nevada, California. *Geophysical Research Abstracts*, Vol. 7, 088831

McCaffrey, M., T. Switalski, and L. Eby. 2007. Effects of Road Decommissioning on Stream Habitat Characteristics in the South Fork Flathead River, Montana. *Transactions of the American Fisheries Society* 136:553–561.

Monlux, S. and M. Mitchell, 2007. Chloride stabilization of unpaved road aggregate surfacing. *Transportation Research Record: Journal of the Transportation Research Board*, No. 1989, Vol. 2. Transportation Research Board of the National Academies, Washington, D.C., pp. 50-58.

Ott, R., A. Ambourn, F. Keirn, A. Arians. 2005. Relevant Literature for and Evaluation of the Effectiveness of the Alaska Forest Resources and Practices Act: An Annotated Bibliography. Reference #404.

Sanders, T. and Addo, J. 1993. Effectiveness and Environmental Impact of Road Dust Suppressants. Department of Civil Engineering, Colorado State University. Ft. Collins, CO.

Smith, K. 2016, unpublished report. PACFISH Buffer and Temporary Road Monitoring and Miscellaneous Timber Sale Observations Report. Nez Perce-Clearwater National Forest, Lochsa Ranger District. *Unpublished report...available in the project file.*

Sridhar, V., Sansone A.L., LaMarche, J., Dubin, T. and Lettenmaier, D.P. 2004. Prediction of Stream Temperatures in Forested Watersheds. *Journal of the American Water Resources Association (JAWRA)*, 40(1):197-213.

Sugden, Brian, R. Ehtridge, G. Mathieus, P. Heffernan, G. Frank and G. Sanders. 2012 Montana's Forestry Best Management Practices Program: 20 Years of continuous improvement. *Journal of Forestry* 110(6): 328-336.

Swift, L.W., 1984. Soil losses from roadbeds and cut and fill slopes in the southern Appalachian Mountains. *South. J. Appl. For.* 8 (4), 209–216.

Swift Jr., L.W., R.G. Burns. 1999. The three Rs of roads: redesign, reconstruction, restoration. *Journal of Forestry*, 97 (8), pp. 40–44.

Switalski, T. A., J. A. Bissonette, T. H. DeLuca, C.H. Luce, and M.A. Madej. 2004. Benefits and impacts of road removal. *Frontiers in Ecology and Environment* 2(1):21-28.

Takken, I., Croke, J., and Lane, P.. 2008 A methodology to assess the delivery of road runoff in forestry environments. *Hydrological Processes*, 22: 254-264.

USDA Forest Service - Clearwater National Forest. 2003. Annual monitoring and evaluation report (BMP Effectiveness section), Fiscal Year 2003. Clearwater National Forest, Orofino, Idaho.

USDA Forest Service - Clearwater National Forest. 2008. Annual monitoring and evaluation report (BMP Effectiveness section), Fiscal Year 2008. Clearwater National Forest, Orofino, Idaho.

USDA Forest Service, 2016. Habitat Condition for Sites in U.S. Forest Service Region 1. PACFISH/INFISH Biological Opinion (PIBO) Effectiveness Monitoring Program. USDA Forest Service, Logan, UT. *Unpublished report...available in the project file.*

USDA Forest Service 2016b. Special Report of Stream Habitat Condition for Sites in the Nez Perce-Clearwater National Forest. PACFISH/INFISH Biological Opinion (PIBO) Effectiveness Monitoring Program. USDA Forest Service, Logan, UT. *Unpublished report...available in the project file.*

USDA Forest Service, 2016. Effectiveness of Best Management Practices that Have Application to Forest Roads: A Literature Synthesis. Gen. Tech Report NRS-163.

USDA Forest Service, 2012. PACFISH INFISH Biological Opinion Effectiveness Monitoring Program for Streams and Riparian Areas, 2012 Summary Report.  
<http://www.fs.fed.us/biology/fishecology/emp/index.html>

USDA Forest Service. 2006. Forest plan evaluation and monitoring report. Fiscal year 2006. Hamilton, MT: U.S. Department of Agriculture, Forest Service, Bitterroot National Forest. Pp.76-82.